

IN THE SPECIFICATION

Page 9, first full paragraph (lines 6-17):

More specifically, however, the circuit interrupting devices described herein have at least three pairs of electrically isolated terminals: at least one pair of line terminals, at least one pair of load terminals and at least one pair of user or face terminals. The at least one pair of line terminals permits electrical power (e.g., alternating current (AC) to be connected to the device and the at least one pair of load terminals permits external conductors or appliances to be connected to the device. These connections may be, for example, electrical fastening devices that secure or connect external conductors to the circuit interrupting device, as well as conduct electricity. Examples of such connections include binding screws, lugs, terminals and external plug connections. The at least one face or user terminal, which typically is implemented using two-prong or three-prong receptacles, allows users to electrically connect electrical devices to the GFCI device typically via the two-prong or three-prong male plugs that mate wit the receptacles.

Page 15, line 20 to Page 16, line 18:

Referring now to FIG. 8, there is shown a sensing circuit comprising a differential transformer, a Ground/Neutral (G/N) transformer, an integrated circuit (IC-1) for detecting current and outputting a voltage once it detects a current, a full wave bridge rectifier (D3, D4, D5, and D6), a surge suppressor (MV1) for absorbing extreme electrical energy levels that may be present at the line terminals, various filtering coupling capacitors (C1-C9), a gated semiconductor device (Q1), a relay coil assembly (K1), various current limiting resistors (R1-R4) and a voltage limiting zener diode (D2). The mechanical switch—comprising test arm 90 and test pin 92—is shown connected to the conductors of the line terminals in series with current limiting resistor R4. The movable bridges are shown as switches that connect the line terminals to the face and load terminals. The line, load and face terminals are electrically isolated from each other unless connected by the movable bridges. When a predetermined condition—such as a ground fault—occurs, there is a difference in current amplitude between the two line

terminals. This current difference is manifested as a net current which is detected by the differential transformer and is provided to IC-1. Integrated circuit IC-1 can be any one of integrated circuits typically used in ground fault circuits (e.g., LM-1851) manufactured National Semiconductor or other well known semiconductor manufacturers. In response to the current provided by the differential transformer, integrated circuit IC-1 generates a voltage on pin 1 which is connected to the gate of Q1. A full wave bridge comprising diodes D3-D6 has a DC side which is connected to the anode of Q1. Q1 is turned on shorting the DC side of the full wave bridge activating relay K1 causing the movable bridges to remove power from the face and load terminals. The relay K1 is implemented with the bobbin 82, coil (not shown) and plunger 80 components. Note diode D1 performs a rectification function retaining the supply voltage to IC-1 when Q1 is turned on. The relay K1 can also be activated when mechanical switch 90 is closed which causes a current imbalance on the line terminal conductors that is detected by the differential transformer. The G/N transformer detects a remote ground voltage that may be present on one of the load terminal conductors and provides a current to IC-1 upon detection of this remote ground which again activates relay K1.